CLAIMS

1 A CD81 protein, or a functional equivalent thereof for use in the therapy or diagnosis of HCV.

2 A protein comprising the human CD81 sequence listed in the SWISSPROT database (Accession No. P18582) or the EMBL/GENBANK database (Accession No. M33690) or a functional equivalent thereof for use in the therapy or diagnosis of HCV.

3 A protein comprising an amino acid sequence with at least 80% homology to the human CD81 sequence listed in the SWISSPROT database (Accession No. P18582) or the EMBL/GENBANK database (Accession No. M33690), homology being defined using the Pileup sequence analysis software package (Wisconsin, 1996), for use in the therapy or diagnosis of HCV.

4 A protein comprising amino acids 113-201 of the human CD81 sequence listed in the SWISSPROT database (Accession No. P18582) or the EMBL/GENBANK database (Accession No. M33690), or a functional equivalent thereof.

5 A protein according to claim 4, for use in the therapy or diagnosis of HCV.

6 A compound that binds specifically to a CD81 protein, for use in the therapy or diagnosis of HCV.

7 A method for treating an infection of HCV comprising administering to a patient a therapeutically effective amount of a CD81 protein, or a functional equivalent thereof or administering a compound that binds specifically to the CD81 protein, to reduce the infectivity of the virus.

8 A pharmaceutical composition comprising a CD81 protein, or a functional equivalent thereof, or a compound that binds specifically to a CD81 protein, optionally as a pharmaceutically acceptable salt, in combination with a pharmaceutically acceptable carrier.

9 A pharmaceutical composition comprising a protein according to claim 4 in combination with a pharmaceutically acceptable carrier.

10 A pharmaceutical composition according to either of claims 8 or 9 for use in the therapy or diagnosis of HCV.

11 A process for preparing a pharmaceutical composition as defined in claim 8 or 9, in which a CD81 protein, or a functional equivalent thereof, or a protein according to claim 4 or a compound that binds specifically to a CD81 protein is brought into association with a pharmaceutically acceptable carrier.

12 Use of a CD81 protein, a functional equivalent thereof or a compound that binds specifically to a CD81 protein in the manufacture of a medicament for the treatment or diagnosis of an HCV infection.

13 Use of a protein according to claim 4 in the manufacture of a medicament for the treatment or diagnosis of an HCV infection.

14 An assay for HCV antibodies present in a serum sample comprising the step of allowing competitive binding between antibodies in the sample, a known amount of HCV protein and a known amount of a CD81 protein, or a functional equivalent thereof and measuring the amount of the known HCV protein that binds to the CD81 protein.

15 An assay for HCV in a serum sample comprising the step of allowing competitive binding between antibodies in the sample and a known amount of a CD81 protein, or a functional equivalent thereof and measuring the amount of the known CD81 protein bound.

16 A diagnostic kit comprising a CD81 protein, or a functional equivalent thereof, optionally labeled.

17 A diagnostic kit according to claim 16 wherein the label comprises a radioactive label, a peptide, an epitope, an enzyme, or other bioactive compound,

18 A method for screening chemical compounds for ability to bind to the region of HCV responsible for binding to a host cell, comprising measuring the binding of a

chemical compound to be screened to a CD81 protein, or a functional equivalent thereof.

19 A transgenic non-human mammal, carrying a transgene encoding CD81 protein, or a functional equivalent thereof .

20 A process for producing a transgenic animal comprising the step of introducing a DNA encoding a CD81 protein into the embryo of a non-human mammal, preferably a mouse.

21 A nucleic acid molecule which encodes a CD81 protein, or a functional equivalent thereof for use in the treatment or diagnosis of HCV.

22 A nucleic acid molecule which hybridises to a nucleic acid molecule as defined in claim 21 under standard conditions.

23 A nucleic acid molecule which hybridises to a nucleic acid molecule as defined in claim 21 under conditions of high stringency (2 x SSC, 65°C).

24 The nucleic acid molecule according to any of claims 21-23 which comprises DNA.

25 A CD81 protein or a functional equivalent thereof for use as a protective immunogen in the control of HCV.

26 A fusion protein comprising a CD81 protein or functional equivalent thereof for use in the treatment or diagnosis of HCV.